

CLAIMS

1. A film for suppressing conduction of radiation heat comprising:
a resin film having at least an infrared-ray absorptivity of lower than 25%;
an infrared-ray-reflection layer; and
an adhesive layer;
wherein an infrared-ray reflectivity is 50% or higher.
2. The film for suppressing conduction of radiation heat of claim 1, wherein the adhesive layer is constituted with a bonding area and a non-bonding area,
to laminate together the resin film and the infrared-ray-reflection layer by bonding.
3. The film for suppressing conduction of radiation heat of claim 2, wherein the bonding area and non-bonding area of the adhesive layer forms a geometric pattern.
4. The film for suppressing conduction of radiation heat of claim 2, wherein the resin film has a melting point of 150°C or higher.
5. The film for suppressing conduction of radiation heat of claim 2, wherein the resin film is a fluorinated resin film.
6. The film for suppressing conduction of radiation heat of claim 4, wherein the resin film is a polyphenylene sulfide film.
7. The film for suppressing conduction of radiation heat of claim 2, wherein the infrared-ray-reflection layer is a metal foil.
8. The film for suppressing conduction of radiation heat of claim 2, wherein the infrared-ray-reflection layer is a metal-evaporated film.

9. A heat-insulating member having the film for suppressing conduction of radiation heat of claim 2 such that the resin-film is positioned at an outer side.

10. The film for suppressing conduction of radiation heat of claim 2, wherein a thermal bonding layer formed of a thermosetting resin is layered on the infrared-ray-reflection layer by an adhesive.

11. A heat-insulating member comprising:

a core material; and

a plurality of envelope materials, having a gas-barrier nature, having thermal bonding layers on inner surfaces and covering the core material, to seal an interior of the envelope materials under reduced pressure;

wherein at least one of the envelope materials is the film for suppressing conduction of radiation heat of claim 10.

12. The film for suppressing conduction of radiation heat of claim 1, wherein the resin film has a melting point of at least 150°C or higher, the infrared-ray-reflection layer is made by a metal foil.

13. The film for suppressing conduction of radiation heat of claim 12, wherein the resin film and the metal foil are layered alternately.

14. The film for suppressing conduction of radiation heat of claim 12, comprising the resin film and the metal foil layered.

15. The film for suppressing conduction of radiation heat of claim 12, wherein the metal foil is an aluminum foil.

16. The film for suppressing conduction of radiation heat of claim 12, wherein the resin film is a fluorinated resin film.

17. The film for suppressing conduction of radiation heat of claim 12, wherein the resin film is a polyphenylene sulfide film.

18. A heat-insulating material comprising:
the film for suppressing conduction of radiation heat of claim 12 provided on a surface of a heat-insulating material.

19. A vacuum heat-insulating material comprising:
a core material; and
an envelope material covering the core material;
wherein the envelope material has an interior reduced in pressure, the envelope material having a lamination structure having a thermal bonding layer, a gas-barrier layer and a protection layer having a radiation-heat-conduction suppressivity;

the protection layer using the film for suppressing conduction of radiation heat of claim 1, the infrared-ray-reflection layer being a metal foil.

20. The vacuum heat-insulating material of claim 19, wherein the protection layer is layered with the resin film and the metal foil alternately.

21. The vacuum heat-insulating material of claim 19, wherein the protection layer is formed with the resin film in a single layer and the metal foil layered.

22. The vacuum heat-insulating material of claim 19, wherein the metal foil of the protection layer is an aluminum foil.

23. The vacuum heat-insulating material of claim 19, wherein the resin film of the protection layer is a fluorinated resin film.

24. The vacuum heat-insulating material of claim 19, wherein the resin film of the protection layer is a polyphenylene sulfide film.

25. The vacuum heat-insulating material of claim 19, wherein the metal foil of the protection layer is formed as a gas-barrier layer.

26. The vacuum heat-insulating material of claim 19, wherein the envelope material, having the protection layer having a radiation-heat-conduction suppressivity, is used in a surface that is to become a higher-temperature side at least when the vacuum heat-insulating material is set up.

27. The vacuum heat-insulating material of claim 26, wherein the envelope material, on the surface that is to become a higher-temperature side when the vacuum heat-insulating material is set up, is greater in size than the envelope material on a lower-temperature side.